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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0605229F: <i>Combat Rescue Helicopter (CRH)</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	11.924	11.113	123.210	-	123.210	397.100	573.048	137.526	71.708	Continuing	Continuing
654364: <i>Combat Rescue Helicopter</i>	-	11.113	123.210	-	123.210	397.100	573.048	137.526	71.708	Continuing	Continuing
657001: <i>Avionics Development and Integration</i>	11.924	-	-	-	-	-	-	-	-	Continuing	Continuing

Note

In FY12, Project Number 657001, Avionics Development and Integration efforts were transferred to PE 0207224F, Project Number 676016, and PE 0101235F, Modification Number 3149T, in order to effectively execute this effort for both HH-60G and UH-1N aircraft.

The Cost to Complete and Total Cost for MDAP projects in this program element are documented in the R3. The Cost to Complete and Total Cost on the R2 are entered as "Continuing" and not reflective of the total cost for MDAP projects since the R2 does not account for prior years funding.

A. Mission Description and Budget Item Justification

The Combat Rescue Helicopter (CRH) program, formerly referred to as HH-60 Recapitalization, will replace the aging HH-60G. The HH-60G currently supports the Air Force's core function of Personnel Recovery. The primary mission of the HH-60G is to conduct day / night / marginal weather Combat Search and Rescue (CSAR) in order to recover downed aircrew or other isolated personnel in hostile or permissive environments. Other mission areas include casualty evacuation (CASEVAC), medical evacuation (MEDEVAC), non-combatant evacuation operations, civil search and rescue, international aid, disaster humanitarian relief, and insertion/extraction of combat forces.

654364 – Combat Rescue Helicopter: Funding will procure a Government Off the Shelf/Contractor Off the Shelf (GOTS/COTS) aircraft configured with mission equipment. There will be required effort to integrate mature subsystems and the associated software. The mature subsystems integration and software development will include human systems integration, advanced communication/net ready, and improved survivability among others.

657001 - Avionics Development and Integration: This effort will fund a fully-integrated avionics upgrade that includes predictive terrain awareness for Air Force helicopters.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

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B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	12.584	94.113	40.365	-	40.365
Current President's Budget	11.924	11.113	123.210	-	123.210
Total Adjustments	-0.660	-83.000	82.845	-	82.845
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-83.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.660	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	82.845	-	82.845

Change Summary Explanation

FY11 Reprogrammings at Congressional direction.

FY12 congressional directed reduction was requested by the AF based on delay in schedule

FY13 funding increase supports the procurement of two (2) test aircraft

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605229F: Combat Rescue Helicopter (CRH)				PROJECT 654364: Combat Rescue Helicopter			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
654364: Combat Rescue Helicopter	-	11.113	123.210	-	123.210	397.100	573.048	137.526	71.708	Continuing	Continuing
Quantity of RDT&E Articles	0	0	2	0	2	2	5	0	0		

Note

The Cost to Complete and Total Cost for MDAP projects in this program element are documented in the R3. The Cost to Complete and Total Cost on the R2 are entered as "Continuing" and not reflective of the total cost for MDAP projects since the R2 does not account for prior years funding.

A. Mission Description and Budget Item Justification

The Combat Rescue Helicopter (CRH) program, formerly referred to as HH-60 Recapitalization, will replace the aging HH-60G. The HH-60G currently supports the Air Force's core function of Personnel Recovery. The primary mission of the HH-60G is to conduct day / night / marginal weather Combat Search and Rescue (CSAR) in order to recover downed aircrew or other isolated personnel in hostile or permissive environments. Other mission areas include casualty evacuation (CASEVAC), medical evacuation (MEDEVAC), non-combatant evacuation operations, civil search and rescue, international aid, disaster humanitarian relief, and insertion/extraction of combat forces.

Funding will provide acquisition program activities, milestone (MS) document development and test and evaluation activities. Key activities and products include systems engineering strategy and analysis, technology and manufacturing maturity analysis, test and evaluation activities, life cycle cost estimates, sustainment and logistics analysis and configuration studies.

B. Accomplishments/Planned Programs (\$ in Millions)

Title: CRH	FY 2011	FY 2012	FY 2013
Description: Procure a new helicopter and associated training systems and support elements that leverages fielded, non-developmental technologies to recapitalize HH-60G fleet.	-	11.113	123.210
FY 2012 Plans: Program office support, source selection, and development of statutory & regulatory acquisition documentation in preparation for an FY13 contract award.			
FY 2013 Plans: Finalize Source Selection activities for an FY13 contract award to include program office support and development of statutory & regulatory acquisition documentation. Procurement of two test vehicles. Design, integration, testing, and certification of the			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force										DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605229F: Combat Rescue Helicopter (CRH)				PROJECT 654364: Combat Rescue Helicopter				
B. Accomplishments/Planned Programs (\$ in Millions) mission components to fulfill contract requirements. EMD including but not limited to non-recurring engineering, test vehicle hardware, software, simulator development, and data.										FY 2011	FY 2012	FY 2013
Accomplishments/Planned Programs Subtotals										-	11.113	123.210
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
• PE 0207229F, APAF, Combat Rescue...: Combat Rescue Helicopter	0.000	0.000	0.000	0.000	0.000	0.000	0.000	530.719	883.877	Continuing	Continuing	
D. Acquisition Strategy The CRH program will replace the aging HH-60G system with a new air vehicle and associated training systems and support elements. The acquisition strategy is to procure a Government Off The Shelf/Contractor Off the Shelf (GOTS/COTS) aircraft configured with mission equipment. There will be a required effort to integrate mature subsystems and the associated software. The mature subsystems integration and software development will include human systems integration, advanced communication/net ready, and improved survivability among others. The effort will also support the development of training systems as well as all necessary support elements.												
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Air Force										DATE: February 2012				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0605229F: Combat Rescue Helicopter (CRH)				PROJECT 654364: Combat Rescue Helicopter					
Product Development (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Studies and Analysis	TBD	TBD:TBD,	-	1.008		-		-		-	0.000	1.008	0.000	
Integration	TBD	TBD:TBD,	-	-		28.900		-		28.900	0.000	28.900	0.000	
Data	TBD	Not specified.:	-	-		7.700		-		7.700	0.000	7.700	0.000	
Subtotal			-	1.008		36.600		-		36.600	0.000	37.608	0.000	
Support (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
Test and Evaluation (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
System Test and Evaluation	TBD	46 Test Sq:Ft Walton Beach, FL	-	0.421		4.900		-		4.900	0.000	5.321	0.000	
Test Aircraft and Associated Support	C/TBD	TBD:	-	-		72.610		-		72.610	0.000	72.610	0.000	
Subtotal			-	0.421		77.510		-		77.510	0.000	77.931	0.000	
Management Services (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
SPO Support	TBD	Various:Dayton, OH	-	4.150		0.159		-		0.159	0.000	4.309	0.000	
PMA - Contractor Services	TBD	Various:Dayton, OH	-	4.861		6.085		-		6.085	0.000	10.946	0.000	
PMA - Government Costs	TBD	Various:Dayton, OH	-	0.673		2.856		-		2.856	0.000	3.529	0.000	
Subtotal			-	9.684		9.100		-		9.100	0.000	18.784	0.000	

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605229F: Combat Rescue Helicopter (CRH)				PROJECT 654364: Combat Rescue Helicopter			
	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	11.113		123.210		-		123.210	0.000	134.323	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0605229F: Combat Rescue Helicopter (CRH)	PROJECT 654364: Combat Rescue Helicopter

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0605229F: <i>Combat Rescue Helicopter (CRH)</i>	PROJECT 654364: <i>Combat Rescue Helicopter</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Acquisition Strategy Panel	2	2012	2	2012
Request for Proposal	3	2012	3	2012
Milestone B	3	2013	3	2013
Source Selection Contract Award	3	2013	3	2013
Test Aircraft Purchased	4	2013	4	2013
Initiate Responsible Test Organization Activities	4	2013	4	2013
System Readiness Review	4	2013	4	2013
Preliminary Design Review	2	2014	2	2014
Low Rate Initial Production/Milestone C	3	2016	3	2016
Interoperability and Live Fire Testing	3	2013	1	2017
Critical Design Review	1	2015	1	2015
Initial Aircraft	3	2016	3	2016
Developmental and Operational Test	1	2016	3	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605229F: Combat Rescue Helicopter (CRH)				PROJECT 657001: Avionics Development and Integration			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
657001: Avionics Development and Integration	11.924	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note In FY12, Project number 657001, Avionics Development and Integration efforts were transferred to PE 0207224F, Project Number 67616, and PE 0101235F, APAF, Modification Number 3149T, in order to effectively execute this effort for both HH-60G and UN-1N aircraft.											
A. Mission Description and Budget Item Justification The Air Force Rotary Wing Avionics Development and Integration effort will fund a fully integrated avionics upgrade that includes predictive terrain awareness and traffic collision avoidance warnings for all Air Force helicopters. The Air Force is assessing the requirements of both the UH-1N and HH-60 and developing acquisition solutions unique to each platform. FY11 is the last year of funding in this Line. The funds have been redistributed to PE 0101235F (WSC H00100) for the UH-1N and PE 0207224F (BPAC 676016) for the HH-60.											
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2011	FY 2012	FY 2013	
Title: Avionics Development & Integration Description: Procure avionics upgrades that include predictive terrain awareness and traffic collision avoidance for UH-1N helicopters. FY 2011 Accomplishments: Develop and integrate the avionics upgrade on the UH-1N to include predictive terrain awareness and traffic collision avoidance. The efforts will include studies and analysis.								1.924	-	-	
Title: Avionics Development and Integration Description: Procure avionics upgrades that include predictive terrain awareness for helicopters. FY 2011 Accomplishments: Effort furthers the development of Three Dimensional Landing Zone (3D-LZ) technologies that will aid helicopters in restricted visibility environments. Includes but not limited to: Design of dust penetration algorithm for laser, design and production of common Forward Looking Infrared (FLIR) turret, ground and flight test. The efforts will include studies and analysis.								10.000	-	-	
Accomplishments/Planned Programs Subtotals								11.924	-	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0605229F: <i>Combat Rescue Helicopter (CRH)</i>	PROJECT 657001: <i>Avionics Development and Integration</i>	

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF, PE 0101235F, ICBM Helicopt...: <i>Traffic Alert & Collision</i> <i>Avoidance System</i>	0.000	3.000	3.000	0.000	3.000	4.750	4.750	0.000	0.000	Continuing	Continuing
• RDT&E, PE 0207224, Combat Re...: <i>Avionics Development and</i> <i>Integration</i>	0.000	2.292	2.091	0.000	2.091	3.633	4.528	0.000	0.000	0.000	12.600

D. Acquisition Strategy

The solution set for the UH-1N is expected to be an in-production, non-developmental, Government Off-The-Shelf or Commercial Off-The-Shelf (GOTS/COTS) aircraft modification requiring integration into existing systems. The Three Dimensional Landing Zone (3D-LZ) technology will be further developed using the Air Force Research Labs and OSD's Defense Microelectronics Activity.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
UH-1N Studies and Analysis	TBD	TBD:TBD,	1.924	-		-		-		-	0.000	1.924	0.000
3D-LZ Development	MIPR	DMEA:,	8.900	-		-		-		-	0.000	8.900	0.000
Subtotal			10.824	-		-		-		-	0.000	10.824	0.000

Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Not specified.	TBD	Not specified.:Location not provided.	-	-		-		-		-	0.000	0.000	0.000
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPO Support	TBD	TBD:TBD,	1.100	-		-		-		-	0.000	1.100	0.000
Subtotal			1.100	-		-		-		-	0.000	1.100	0.000

			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			11.924	-		-		-		-	0.000	11.924	0.000

Remarks													
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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
UH-1N studies and analysis	2	2011	2	2012
UH-1N development and production	2	2012	4	2015
3D-LZ Development and Test	1	2011	3	2014
3D-LZ Integration into HH-60G	3	2011	4	2015